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MEDIAEVAL GEM STONES

By URBAN T. HOLMES

THERE is no lack of studies dealing with gem stones and minerals in the Middle Ages, but they are all primarily concerned with the magical lore associated with these substances, or with lapidaries in Latin and the vernaculars which are little more than repetitions of the writings of Pliny and Damigeron.[1] Perhaps it is ignorance on my part, but I know of no reference which seeks to identify systematically, with their modern names, the gems in actual use during the mediaeval period, unless it be the *New English Dictionary*. Even Studer and Evans, in their edition of Anglo-Norman lapidaries, are too chary of hypotheses. For instance, they list French *melochite* as *molochitis, a stone* — when it should be quite evident from the description that malachite, a well-known green stone, is intended. This malachite served as a pigment for early painters, and it is still used for jewel cases by such ladies as Zuleika Dobson! These same editors also make no statement of identity concerning the *aetites* or 'eagle stone,' when Miss Evans, in a work two years earlier in date, is well aware that the gold-mounted clapperstone (a piece of limonite with loose pebble inside) preserved in the British Museum answers the description. The late G. F. Kuntz, who contributed so much to the history of gems, has much information of this sort scattered through his books; but there is no systematic discussion of anything but the folk beliefs.

In preparing this present article, I have begun by examining the jewel inventories which are extant from the fourteenth and fifteenth centuries and which have been accessible to me.[2] These lists should be representative evidence of the stones that were actually treasured and collected, despite the fact that their collectors were kings or wealthy nobles. There are enough mentions of colored glass, false doublets, and 'pierrerie sans valeur' in these inventories to lead one to

[1] Chief among these studies are: Joan Evans, *Magical Jewels of the Middle Ages and the Renaissance* (Oxford, 1922), G. F. Kunz, *The Curious Lore of Precious Stones* (Lippincott, 1913), and *The Magic of Jewels and Charms* (*ibid.*, 1918), Garrett, *Precious Stones in Old English Literature* (Munich, diss., 1909), Paul Studer and Joan Evans, *Anglo-Norman Lapidaries* (Paris, 1924), and L. Pannier, *Les lapidaires français* (Paris, 1879).

[2] The most detailed of these inventories is the one made after the death of Charles v of France; it is published as the *Inventaire du mobilier de Charles V* (Paris: Imprimerie nationale, 1879) by Jules Labarte. This is a volume in the *Collection de documents inédits sur l'histoire de France*. Less voluminous is the inventory of the goods of Charles vi, edited by Douet d'Arcq in his *Pièces inédites relatives au règne de Charles VI* (Paris: Renouard, 1864), ii, 273–407. Inventories of jewels in the possession of Edward ii, Edward iii, Richard ii, Henry iv, Henry v, and Henry vi of England are accessible in Sir Francis Palgrave's *The Antient Kalendars and Inventories of the Treasury of His Majesty's Exchequer* (London, 1836), iii. The precious ornaments brought to France by Valentine Visconti were listed in a French and in a Latin account; the former is published in the *Miscellanea di Storia Italiana* (Turin: Boia, 1900), series 3, part v, 34–64. The '*Joyaux du Duc de Guyenne*' are in the *Revue archéologique* (1873), pp. 158–170, 209–225, 306–320, 384–395. Isabelle of Bavaria's trousseau was inventoried and this list is published in the *Mémoires de la Société de l'Histoire de Paris*, xxix, 125–1258. I have been unable to secure the *Testament du roi Jean le Bon et inventaire de ses joyaux à Londres* published by G. Bapst (Paris, 1884). Hereafter, where possible, we shall cite each item by its number in the inventory in question. Also of interest here is O. M. Dalton, *Catalogue of the Finger Rings, early Christian, Byzantine, Teutonic and later* (British Museum, 1912).

suspect that distinguished collectors were not too fastidious, and did not scorn gems of low value. With these lists before me I shall attempt a brief discussion of their content, repeating a few observations on gem materials in general which may not be obvious to all readers.[1] Occasionally it is necessary to refer to a description in the lapidaries.[2] It seems likely that where a stone was in common use Bishop Marbodus would not have closed his eyes completely to fact. His error, and the error of his followers, was that they repeated extraneous material from their predecessors, with garbled specifications on an equal footing with information that they knew from observation to be accurate. If these surviving jewel lists are correct, it would seem probable that Marbodus knew less than half the stones which he discussed in his famous lapidary. As to whether Pliny himself had a better average we can only express suspicion.

Today a gem substance is classified by chemical analysis, by hardness, by specific gravity, by lustre, by color, and by the refraction of light passing through it. When we realize that in earlier times only the tests of lustre and color, and a crude hardness test, were in common use, we wonder at any accurate identification at all.[3] A poor, clouded ruby can resemble nothing so much as a piece of sard; a white zircon may easily look like a diamond; an essonite garnet sometimes resembles closely a jacinth or brown zircon. There were many glass imitations in the Middle Ages; Raimund Lull gives particulars on their manufacture;[4] but almost any sort of hardness test would have enabled a goldsmith to distinguish between a sapphire and blue glass.

Standards of value have also changed during the past five hundred years. In Marbodus' lapidary it was the sky-blue sapphire 'puroque simillima coelo' that was most highly prized; modern connoisseurs prefer the deep-blue variety, despite its inky color in a night light. The green turquoise was most in favor in earlier times, whereas today this stone must be of a pronounced greenish-blue to have

[1] For the modern scientific knowledge on gems: their description, provenance, tests, methods of receiving polish, we refer first of all to E. H. Kraus and E. F. Holden, *Gems and Gem Materials* 2 ed. (New York: McGraw-Hill, 1931); then to certain pamphlets distributed by the U. S. Bureau of Mines: I.C., 6471, 6518, 6459, 6502, 6539, 6491, 6493, 6465. These pamphlets discuss, respectively, the corundums, garnets, emerald, and other beryls, topaz, tourmaline turquoise, opals, and zircons. The last is by E. P. Youngman; the others are by Miss Irene Aitkens.

[2] The prominent lapidaries of antiquity were the Περὶ λίθων of Theophrastus, the *Materia Medica* of Dioscorides (Bk. v), the *Historia Naturalis* of Pliny (Bk. xxxvii), the Orphic *Lithica*, and the Hellenistic *Damigeron*. Those of the Middle Ages were the *Etymologiae* of Isidore of Seville (Bk. xvi), the Latin lapidary of Bishop Marbodus and its many vernacular derivatives, the *Steinbuch* of Volamar, and the Latin lapidary of Albertus Magnus. The Marbodus text is in Migne, Patr. Lat., CLXXI, 1738–1770; many of the French texts derived therefrom are published by Studer and Evans in the reference given in note 1. Paul Meyer called attention to certain unpublished French lapidaries in *Romania*, XXXVIII, 44 ff., *ibid.*, pp. 481 ff., and in the *Bulletin de la Société des Anciens Textes* (1879), pp. 72 ff. The great Spanish lapidary of Alfonso X was based upon Arabic material.

[3] Pliny tells us of the use of a file or of gem dust for distinguishing between glass and the real gems. But as no exact scale of relative hardness, such as the Mohs scale used today, was in existence, their test was crude indeed; *Historia Naturalis*, XXXVII, 76.

[4] Lull tells specifically how to counterfeit the pearl, carbuncle, diamond, balas ruby, sapphire, almandine garnet, turquoise (torques), emerald, bloodstone, topaz, chalcedony, beryl, and *monascus* (*Libelli aliquot chemici* (Basel, 1600), p. 298–319). All these are common stones save the last.

value. I have seen an antique turquoise gem from Asia Minor which is so full of gangue and impurities that we wonder today why it was ever treasured. Coarser minerals were also esteemed by the mediaeval man, but usually for their therapeutic values, such as the iron ores: magnetite, limonite, haematite, and pyrites. The first of these still retains popularity among our primitive people of today as a lucky stone to 'draw one's love.' A catalogue issued by a firm in Chicago lies before me, and one of the items shows a piece of magnetite with rays of power, money, jobs, games, and love sparkling from it, and the caption 'Get my famous five-power loadstone bag.' In the Middle Ages, the magnetite was also a tester for chastity. If a husband should place a chunk of this mineral on the head of his sleeping spouse, according to the lapidaries, he could tell by her smiles whether she was faithful or not. Probably the result of the test depended more upon the size of the stone and the force with which it was applied!

Many of the gems present in Europe during the Middle Ages were survivals from the ancient world; this must have been very frequently the case with engraved gems, as the art of gem-engraving slumbered a bit from the fifth century to the Renaissance.[1] After all, a precious stone is quite imperishable (we except the opal), unless it is deliberately destroyed or ground for medicinal purposes. In the mediaeval period, opals were mined at Czerwenitza (Hungary) and turquoise was extracted in Persia near Nishapur.[2] From the East, doubtless through the market of Alexandria, a stream of rubies, sapphires, diamonds, and other stones, found its way into Europe. The agate mines of Germany were not opened until the fourteenth century, and the emerald deposits of Egypt had ceased to be worked since the late Roman Empire.[3] Jet amber, and 'perles d'Escosse' continued to be found in northern Europe. Some sapphires of an inferior quality were found near du Puy en Velay in the volcanic deposits of that region. These were always designated in the inventories as 'sapphires de Puy.'[4] It is extremely probable that the garnet mines of Bohemia were worked at this time, although there is no positive information to that effect. Lapis lazuli was mined in Armenia.[5]

The task of assigning modern names to the gems of the Middle Ages is complicated by the fact that many names of precious stones have shifted in the course of the centuries. This is particularly true for the opaque and non-crystalline varieties of quartz. The modern retail jeweler is often confused here. It might be em-

[1] The two mediaeval lapidaries of engraved gems published by Studer and Evans (*op. cit.*, pp. 277–296) list designs that are classic; examples of most of these designs are to be found in the classical collection of the Metropolitan Museum of Art in New York City; consult A. Furtwangler, *Antike Gemmen* (Leipzig and Berlin, 1900), 3 volumes, and Gisela M.A. Richter, *Catalogue of Engraved Gems of the Classical Style* (New York, 1930). Alexander Neckam mentions some gem engraving in his day; consult the reference in note 9. For mediaeval gem engraving, such as it was, the reader should see O. M. Dalton's *Guide to the Mediaeval Antiquities and Objects of Later Date* (2nd ed.; London: British Museum, 1924), pp. 102–109.

[2] I.C., 6493, p. 6; I.C., 6491, p. 13. Edrisi (*ca* 1154) mentions the torquoise mines in Persia as well as mines for rock crystal and for *prasme d'émeraude* (?); *La Géographie d'Edrisi*, tr. P. A. Jaubert (Paris: Impr. Royale, 1836–1840), II, 185.

[3] Ernst Falz, *Die Idar-Obersteiner Schmuck-Industrie* (Idar: C. Schmidt, 1926); I.C., 6459, p. 5.

[4] J. Rambosson, *Les Pierres précieuses* (Paris: Didot, 1870), p. 78; Labarte (2301).

[5] Edrisi, *op. cit.*, II, 340.

barrassing for him if a customer should enter his shop and ask to be shown one specimen each of prase, chrysoprase, onyx, sardonyx, agate, carnelian, sard, jasper, and chalcedony. These are the usual varieties of non-crystalline quartz. In correct modern terminology, the prase is a leek-green stone, and the others in respective order are: a gem of apple-green color, a stone cut so that it appears to be built up with two or more layers, a similar stone with one layer of sard, a stone cut so that bands or blotches of variegated shades or colors lie on the surface, a flaming orange or yellow stone, a brown or reddish gem, an opaque dull quartz of red, yellow, or green shade, and last, a translucent specimen of blue, grayish, or smoky shade. Plasma is another variety of impure opaque quartz which is not sold by a jeweler; it is similar to green jasper except that it is still less pure: sometimes it is darker, sometimes it has light patches scattered throughout. Black stones of this material were known as touchstones during the Middle Ages: they were known to show clear, yellow streaks of fine gold when a piece of that metal was scratched over their surface.

All the mediaeval inventories agree in the truly precious stones which adorned the royal and ducal crowns. These were the sapphire, balas ruby, emerald, pearl, corundum ruby, and the diamond. In the treasury of Edward II, in the year 1324, there were many crowns of which a typical description is: 'Une coroune d'or . . . dont les mestres perres sont rubies, emeraldz et baleies et les troches des emeraldz et de vi. perles.'[1] Another has 'saphirs d'orient' to be distinguished, of course, from 'saphirs de Puy,' and still another has 'perles d'Escoce'[2]. The descriptions of crowns in the jewels of Charles V of France are more elaborate, but the gems are the same. In the specifications of one of these crowns we read 'sur le fruitelet, a troys autres perles et ung dyamant ou mylieu.'[3] We are safe in assuming that these seven were the truly precious stones of the Middle Ages, and we note that they correspond exactly to what we call precious today except for the balas ruby. The balas is a spinel of pinkish or rosy hue. Doubtless this was distinguished most often from the corundum or genuine ruby by its color. The true ruby usually varies from a violet to a pigeon's-blood red. But Charles V had several rubies of a rosy hue and others of a pale color![4] How a mediaeval lapidary could distinguish a rose-colored ruby from the balas without accurate knowledge of hardness or refraction tests is difficult to explain. The lapidary who inventoried the jewels belonging to Charles V speaks also of 'ballaiz rouges et yndez.'[5] Does the 'yndez' refer to a red-violet spinel or does it mean the blue spinel — the sapphirine? How could a sapphirine be distinguished at that time from a sapphire? If the *hephaestitis* of Pliny and of Marbodus is the spinel (and this seems probable) then it was known to them that the spinel could be used for a burning glass — that it was isotropic (not splitting a ray of light that passes through it in any direction).[6] Of course, the corundums, both the ruby and the sapphire, are uni-

[1] Palgrave, III, 139.
[2] *Ibid.*
[3] Labarte (2).
[4] *Ibid.*, items (495), (498), (506), (515), (504), (516), (499).
[5] (840).
[6] In the second prose lapidary in French (Studer and Evans, p. 340) the name *balas* is used for the same stone that is described as *hephaestitis* in Marbodus. Marbodus says of the *hephaestitis*, 'Ad solem positus radios emittit ut ignem.'

axial (splitting the rays except when they enter in one specific direction). If these simple facts were known at the time, a mediaeval lapidary had only to hold a piece of parchment or paper before the stone in the sunlight to test this refraction. There is also mention of white balas.[1] Surely there must have been some test for the balas other than those of color and lustre at this early date.

We have mentioned above the 'perles d'Escosse.' Certain streams in Wales and Ireland, but more especially in Scotland, have always carried a pearl-bearing fresh-water mussel. Tacitus mentions the British river pearl; Pliny does also.[2] The Scottish rivers that are most profitable for this industry are the Spey, Tay, South Esk, Doon, Dee, Don, Ytham, and particularly the Forth; in Wales there is the Conway and in England there are the Cumberland rivers.[3]

Imitations of the emerald, sapphire, and ruby were worn even by the kings. Charles v had a crown of thirteen 'florons . . . en chascun florin une esmeraude contrefaicte.'[4] A 'doublait' was formed by cementing together two hemispheres or otherwise shaped pieces of glass with a thin layer of color in between. In another item belonging to Charles v there are 'pierres faulses, c'est assavoir doublaiz rouges et voirre vers.'[5] In one of his crowns, Edward II had 'dublesces et de vertz et de vermeill.'[6] Some problem is presented in the identity of 'proesme d'esmeraude.' The Godefroy lexicon of Old French defines 'presme' as 'cristal de roche coloré qui prend le nom de la pierre fine dont il se rapproche le plus par sa nuance.' This would seem to be the case from such a statement as 'y a proesme et autre faulse pierre rouge.'[7] Cotgrave in the year 1611 defined a 'presme d'esmeraude' as 'A base, or course, Emerauld; whereof there be divers kinds, some transparent as the green jasper; others of a thick or mallow color.' Those who follow Godefroy's definition must derive the form *proesme* or *presme* from *proximum*. Godefroy also records the spelling *prasme*, and this, I believe, is the key to the original meaning of this stone: it was not colored rock crystal, it was green plasma which is a variety of dark green jasper, as Cotgrave appears to know. Doubtless there was later confusion between *prasme* and *proisme* (<*proximum*). As to whether *prasme* or *presme* could ever be used for anything except plasma or green jasper: that is, for a counterfeit of any color, is not clear; but I doubt it.

We pass to other stones of almost certain identity in the inventories. In the time of Henry IV the royal treasury of England had 'un anell d'or ove i. peritot.'[8] The *Chrysolithus* or peridot, which is described so aptly by Bishop Marbodus, was not frequently listed in the mediaeval collections; but Charles v of France also had two gems which were listed as *paridos*.[9] This stone was confused with the topaz by ancient authorities; but the identity of the mediaeval peridot with the stone so called today is evident from the detailed description given by Marbodus. The present writer has a specimen for which there is no better description

[1] Labarte (753).

[2] Pliny, ix, 57; Tacitus, *Agricola*, 12.

[3] *Manchester Guardian Weekly*, July 7, 1933.

[4] Item (21).

[5] (72), (48).

[6] Palgrave, III, 140.

[7] (3068). Just what is meant by 'rubiz d'emeraudes' (2588) ? We suspect there was an error here: a confusion between 'rubiz d'Alexandre' and 'proesmes d'émeraude.'

[8] Palgrave, III, 352.

[9] (765), (1028).

than the words of Marbodus: 'Auro chrysolithus micat . . . Iste mari similis.' Charles v had one topaz signet which we assume to be genuine, that is, a real fluosilicate of aluminum, although it is quite possible that any yellow stone might pass under this name in the mediaeval period. The yellow beryl, or the citrine (a yellow crystalline quartz), or the cairn gorm (a smoky crystalline quartz), might have been mistaken for the topaz. The gem in question, belonging to Charles v, was probably a survival from the ancient period: it was engraved with a crescent and stars.[1]

Marbodus recognized six varieties of *beryllus* or beryl, but it is simpler for us to speak of this mineral with the modern classifications: aquamarine (blue or bluish green), morganite (rose), golden beryl, goshenite (white), and, of course, the emerald which is a saturated, true green. In the treasury of Henry IV of England there were two small pots and a spoon made of beryl.[2] As the aquamarine is by far the commonest variety, and as it is the only kind that is apt to be found in large crystals, in good color, we cannot hesitate to pronounce these utensils aquamarines. The treasury of France, under Charles v had a 'pomme de bericle' and several 'bericles' framed as spectacles.[3] The first mention in history of horn-rimmed spectacles is probably this item: 'ung bericle ront, plat, environné de corne noire.'[4] It is, of course, common knowledge that modern French *bésicles* is derived from *bericles*. For this purpose it is likely that a pale blue-green was most satisfactory; the emerald green was beyond the reach of all but a Nero![5]

The amethyst was a very popular stone in the inventories. Coral was common — frequently in its native unpolished condition, and jet (*gagates*) and amber (*electrum*) were also frequent. Nowhere do we find the word *ligure*<*lyncurium* except in the lapidaries, and this was most certainly another term for amber.[6] Garnets or *grenati* are not rare in the inventories, but the inference is that they were little prized. Whether these garnets were pyrope, of a dark-red color, or almandine, of a red-violet hue, cannot be determined. Probably both varieties were common. We assume that brown essonite garnets might have been confused with something else by the inventorists; and yet the *jacintes grenaz* which are mentioned in the lapidaries were most certainly essonite garnets, which would indicate that these stones *could* be correctly identified. In all events the inventories make no specific reference to the essonite garnet.

In none of the inventories is there mention of the term carbuncle or *carbunculus*. Presumably this was a learned name and one not used by sober lapidaries and goldsmiths of the fourteenth and fifteenth centuries. Dr Kuntz has listed some famous carbuncles, still preserved as such in ecclesiastical treasuries, which are unquestionably garnets.[7] This does not exclude the possibility that rubies may also have received this designation; but it was probably applied more often to the pyrope garnet. Students of mediaeval literature will recall how the Sara-

[1] (643).
[2] Palgrave, III, 355.
[3] (1904), (1919), (2706).
[4] (2205).
[5] Pliny says that Nero viewed gladiatorial combats through an emerald; XXXVII, 16, 5.
[6] Pliny, XXXVII, 13; VIII, 57.
[7] *Curious Lore Precious Stones*, pp. 164–165.

cen ships could be lighted by carbuncles fastened at the mast-head.[1] This is fiction, but there may be a slight basis in fact. A late Greek alchemical treatise records that a phosphorescent extract, obtained from marine animals, could be painted on such a stone, as a foil, to provide light in the dark.[2]

Turquoise is frequently met with in the inventories; but in none of them is there mention of the jacinth or jargon. This stone is the Latin *hyacinthus*, and it was confused with the topaz in Pliny's day. The more or less accurate classification of this material by Marbodus must have been based upon observation. Marbodus says there are three varieties of the *hyacinthus:* brown, yellow, and green. Today we call this mineral by the general term *zircon*, and use *jacinth* in particular for the red or brownish zircon. This absence of the jacinth in the inventories is surprising. Alexander Neckam, while listing the materials used by a goldsmith of his day, makes incidental mention of amber, diamonds, marble, *jacinths*, emeralds, carbuncles, jasper, sapphires, and pearls.[3] In a medical recipe of 1420 the jacinth occurs as an ingredient in an electuary.[4]

It is now necessary to distinguish between the different varieties of non-crystalline quartz as they occur in the inventories. It soon becomes evident that *jaspre* (Latin *jaspis*) was frequently a generic term used in the sense that we find agate to-day. Charles VI had an 'escuelle de jaspre violet, vergiee de blanc.'[5] His father, Charles V, possessed a cup of which the receptacle was of 'jaspre vergoyé de vert et de blanc.'[6] These stones would be designated as fancy agates by a modern lapidary. Another cup in the possession of the elder Charles was of 'jaspre azuré.'[7] This we should now call blue chalcedony. The expressions red, green, and yellow jasper, so frequently met with throughout the inventories, must have meant what they do today; e.g., 'perie ove la mesine de jaspe vert et vermaille' (Edward III).[8] The *cassidoine* (Latin *calcedonius*) was, of course, chalcedony; but we should be clear as to what sorts of translucent quartz were designated by that name. Among the treasures of Charles VI there was a portable altar 'ouquel a ou milieu une pierre carree amatistre et cassidoyne.'[9] The peroxide of iron which gives the violet tinge to amethyst is often distributed unevenly through the quartz crystal. It is evident from this description that the uncolored portion of a quartz crystal could be called chalcedony. In other places there are references to 'cassidoine blance.'[10] Surely we are accurate in claiming that this stone was usually our modern milk agate, and probably also our pale gray chalcedony. The term could also be confused with jasper. Of the jewels that Valentine Visconti brought with her to France there are two inventories: one in Latin and the other in French. The same entry is in one: 'un reliquiaire d'or d'un jaspe'; in the other it is 'fermalium unum cum uno lapide calcedoniae.'[11] There is still other evidence

[1] *Chanson de Roland*, v. 2632 ff.

[2] M. Berthelot in the *Comptes Rendus de l'Académie des Sciences*, CVI (1888), 443–446.

[3] *Jahrbuch für englische u. romanische Literatur*, VII, 171.

[4] *Chroniques de Charles VII* (Paris, 1886), p. 287.

[5] Douet d'Arcq (202). [6] Labarte (1956). [7] (1955).

[8] Palgrave, III, 181. [9] Douet d'Arcq (73). [10] Labarte (2249) etc.

[11] *Miscellanea Storia Italiana*, V (1900), 37. Compare also 'une pierre de cassidoine ou de jaspre en façon de coquille' in Douet d'Arcq (185).

that *cassidoine* could have a generalized meaning, similar to that of jasper. Charles v had 'ung camahieu d'un cassidoyne qui a une teste blanche a ung chappelet de fleurettes rousses et une torche derriere.'[1] This means that the cameo was engraved in a piece of red and white chalcedony — a stone which should be specifically called a sardonyx. The sardonyx is a combination of sard and light onyx. Cotgrave, in 1611, speaks of the chalcedony as a stone of small value 'though it shine like fire,' whereby it may be inferred that he had the carnelian in mind, which can be of a flaming orange hue.

The expression *camahieu* may well be related to the MHG *gâmahiu* or *gâman*, 'a gem of several colors,' although none of the etymological authorities seems to be aware of this. It is most often found in the inventories with no specific description of the stone used. Occasionally this silence is broken. Charles VI had 'une teste d'alebastre blanche . . . assise sur une piece de marbre noir . . . et semble estre un camahieu.'[2] He also had 'un camahiu sur champ noir a une verge blanche dessus.'[3] Examples of this sort, of the cameo cut in a black and white onyx, are sufficiently frequent to cause us to feel that this was the commonest variety. To be sure, Charles VI also had a 'camahieu vert'[4] and a 'camahieu saphistin.'[5] The first of these was probably the same gem described in Charles v's collection as 'une pierre vert a façon d'un camahiu.'[6]

The carnelian or *corneolus* was a common stone in mediaeval jewelry but hints as to its appearance are rare. The Marbodus lapidary says of it: 'lavaturae carnis par esse videtur.' This suggests the same color as the modern carnelian. Cotgrave defines it as a 'flesh-coloured stone.' This shift from Latin *corneolus* to early French *carneline* would also confirm the association with flesh tint. There is a variety of carnelian, as we call it today, which is of a light orange. Many engraved carnelians survive from the ancient period. As engraved carnelians are often listed in the royal collections with which we are concerned, and as they too were apt to be of ancient origin, it may be inferred that the true carnelian was known and appreciated during the mediaeval period. Prase (*praxus*) and chrysoprase (*chrysoprassus*) are not so named in the mediaeval lists at our disposal. If they were present in these royal treasuries it is likely that they were confused with green jasper, or with *prasme d'emeraude*, which they resemble except for their superior translucency. The bloodstone or *heliotropia*, also not mentioned, could easily have been confused with green jasper, which is what it is, with flecks of red coloring.

The goldsmiths who made the inventory of Charles v's treasures were careful men, and they did not hesitate to show doubt when they failed to recognize a stone. Apparently those who compiled the Charles VI list did not need to hesitate so often; but they too failed at times. The former group of goldsmiths record 'pierretes que on ne scet nommer, et vindrent de l'Empereur de sa myniere.'[7] It is not likely that these were agates from the newly worked mines in Germany, for

[1] (2988).
[2] Douet d'Arcq (144).
[3] *Ibid.*, (480).
[4] *Ibid.*, (522), (308).
[5] (308).
[6] Labarte (2916).
[7] *Ibid.*, (758).

stones of that sort were easily recognizable. Doubtless the Emperor Charles VII of the house of Luxemburg had some control over the opal mines at Czerwenitza and these little stones may have been opals, not mentioned elsewhere in these collections. What was the 'pierre verte a façon d'un camahiu' which we cite in the preceding paragraph? This stone was engraved and therefore likely to have been an ancient gem. An examination of a list of green stones used by ancient gem engravers shows the following varieties: plasma, jasper, emerald, aquamarine, peridot, turquoise, and malachite.[1] Possibly the engraved specimen which puzzled our lapidary was of a common variety, but of such poor quality that it was unrecognizable; otherwise we are tempted to identify this 'pierre verte' with malachite, the only one of these engraved materials not mentioned elsewhere in the inventories. Similarly Charles V had two unidentified red stones with Christian subjects cut into them.[2] These might be mediaeval work; if so we can make no controlled guess of the material. If they dated from the late Roman period the substance was apt to be haematite. Red stones employed by the ancients for engraving were carnelian, jasper, garnet, brownish red haematite, and glass. Haematite was common in the late Roman period. Charles V also had a 'grant pierre a facon d'un amatiste.'[3] If this were not a genuine amethyst we suggest a very light almandine garnet, sometimes called a Syriam garnet. Frequently the inventories mention a 'pierre blanche' with no further indication.[4] This might be intended for the moon-stone or *selenitis*, which was likely to be in a jewel collection of the fourteenth and fifteenth centuries, but which cannot be identified with any other stone mentioned in these royal lists.[5] An unknown 'pierre verdastre,' of which there were two examples in the collection belonging to Charles V, gives no clue.[6]

Proceding further down the scale of values, we come to stones of no ornamental value. The 'pierre saincte qui ayde aux femmes a avoir enfant,'[7] belonging to Charles V, could only be the clapper or eagle stone (*aetites*, also *peanitas*), a piece of limonite with a loose concretion inside. The 'deux pierres en os contre le venin — Lapis Albazahar'[8] were, of course, the famous bezoar, a concretion from the second stomach of some ruminant, usually from a deer, The efficacy of this stone was once tested by Ambroise Paré with great disaster to an unfortunate thief.[9] The primitive people of North Carolina use to draw out poisons with a 'mad stone' which we suspect is a sort of bezoar. A 'pierre qui guerist de la goute,'[10] also in the possession of Charles V, is not to be identified with certainty. The *Sidrac* assigns this curative power to a *sorige* stone. But what is a *sorige?* If such

[1] Richter, *Catalogue Engraved Gems*, liv-lxi.

[2] Labarte (2898): 'ou il y a une croisette entaillee ou mylieu'; *ibid.*, (3009): 'ou il a ung ymage de Nostre Dame.'

[3] (2826).

[4] Labarte (642), (748), (1713), etc.

[5] Pliny's *selinitis* was probably used for muscovite, a variety of mica, as well as for the moonstone.

[6] (766). [7] (617). [8] (598).

[9] This tale is retold from Paré's *Œuvres* by Alfred Franklin in his *La vie privée d'autrefois, Les médicaments* (Paris: Plon, Nourrit, 1891), p. 157 ff.

[10] (618).

a substance ever existed it was doubtless a greenish mass of some salt, which would answer the Sidrac description.[1] A 'crapaudine' or toad stone belonged to Charles VI. This was a palatal tooth from a freshwater gar, or from some other ganoid fish.[2]

Charles VI had a cup of red calamine or zinc ore, a mineral known today as zinc carbonate or smithsonite.[3] The nineteenth-century editors of the inventories which we have been using were all puzzled by a material called *madre* used for cups, knife handles, etc.[4] There is no reason to contradict the *New English Dictionary* which identifies this with bird's-eye maple or with some similar hard wood. The British Museum possesses numerous cups of this material.[5] For 'pourcelaine' we prefer the translation 'mother-of-pearl,' although there is no evidence to prove this beyond question. The abalone pearl so much used in modern jewelry is of a similar nature.

We should like to close with an attempt to identify all the mineral substances listed by Marbodus and Damigeron, but this would increase unduly the length of the present paper. Taking into consideration the stones that are encountered in these royal treasuries, as well as the gems listed by Alexander Neckam and Raimund Lull in references mentioned, the reader will surely admit our contention that of the fifty-nine substances in Marbodus many of them were rare or unknown in Western Europe during the mediaeval period.[6]

THE UNIVERSITY OF NORTH CAROLINA.

MEDIAEVAL NOTES ON THE SIXTH *AENEID* IN *PARISINUS 7930*

BY J. J. H. SAVAGE

STUDENTS of Dante may find interest in the following notes which I copied some years ago from the margins of a codex in the *Bibliothèque Nationale*. This manuscript (numbered 7930) contains the *Eclogues*, *Georgics*, and *Aeneid* of Virgil, with numerous annotations both in the margins and in the text throughout. The text

[1] We have only the Italian version of the *Sidrac* before us. The description there is: 'Sorgoe è una pietra verde . . . ell'è buona incontro a tutte malizie al corpo, di gotte . . .', ed. A. Bartoli (Bologna, 1868) p. 473 ff. Franklin (*op. cit.*, p. 138) believed that *pierre d'éponge* was the stone intended.

[2] Douet d'Arcq (117); O. M. Dalton, *Guide to the Mediaeval Antiquities*, p. 151.

[3] Douet d'Arcq (235).

[4] Labarte says of this: 'Les auteurs ne sont pas d'accord sur la nature de cette matière. Scaliger croit que les vases de madre ne sont autres que les *vasa murrhina* des anciens. Du Cange dit que le madre était l'agate onyx. M. de Laborde veut que le madre soit une sorte de bois . . . M. Douet d'Arcq, qui est d'avis que le madre était une pierre precieuse . . . Nous persistons à croire que le madre etait une matière precieuse . . .' (p. 107, n. 1).

[5] Dalton, *op. cit.*, p. 173 ff.

[6] The mediaeval rings preserved in the British museum show these stones: sapphire, ruby, garnet, chrysoprase, plasma, toadstone, eye agate, crystal doublets, jacinth, pearl, emerald, turquoise, and colored glass; O. M. Dalton, *Cat. Finger Rings*, pp. 2249 ff. This is also evidence for our contention.

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Some Mediaeval Gems and Relative Values

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be substantiated or refuted by a close examination. Whether or not a definite conclusion can be reached on this question, a systematic study of the registers cannot fail to be fruitful. The material is there for many interesting inquiries on the ministry of parishes by regulars, the obligations of parishioners towards their church, liturgical practices, and ordination lists — these are a few of the possibilities.

THE VICTORIA UNIVERSITY,
MANCHESTER (ENGLAND).

SOME MEDIAEVAL GEMS AND RELATIVE VALUES

BY EUGENE H. BYRNE

PRECIOUS stones and jewelry, while they occupied no such place of significance in mediaeval trade as products and commodities in more general use, are so frequently mentioned in commercial documents from the thirteenth century onwards, as to raise the question of their variety and value. After even a partial survey of the documents it is explicable why so little has been written on mediaeval gems from this point of view. In Genoese records, for example, although goldsmiths and other merchants are found in the thirteenth century exporting jewels set and unset to many parts of the Mediterranean and to France, the variety of the gems and semi-precious stones actually named is not great. Emeralds, rubies, sapphires, diamonds, turquoises, in rings and brooches or as loose stones, cameos, crystal and amber beads, garnets, are all spoken of with a relative frequency roughly indicated by the order in which they are here listed, with the general terms *joas* and *lapides preciosi* appearing in testaments and inventories as well as in trade documents from time to time; bowls of chalcedony mounted with silver, knives with handles of coral, silver, and jasper, complete the list except for pearls which greatly predominate over all other gems. That pearls found a ready market in the wide area of Genoese trade is indicated by the large quantities regularly exported. Occasionally they were fairly large stones, even when not described as *perlas grossas*, probably from the Orient, sent in lots of two or three unset, and a notary wealthy enough to give a dot of £150 to one daughter speaks in his testament of ten pearls on the brocaded gown of another daughter. Small pearls, many of them no doubt of the variety known today as seed pearls, perhaps often fresh-water gems, were exported in strands or necklaces in which the stones were never counted and seldom weighed. The shipments of individual merchants run from two to seventy strands at a time, and in 1276 a group of merchants from Lucca purchased an undefined quantity of pearls from a Genoese dealer for £293.

As for the value of such gems as are mentioned, it is difficult if not impossible to arrive at definite conclusions because the weight of the stones is almost never given with the price, and if any terms of description in size or quality are used,

they are very vague. Exporters in their contracts with departing merchants often stated only the value of the whole lot; sometimes the stones are not even counted, and again the total amount of the investment includes other wares as well as jewels. Occasionally one is able to see that the stones were of high quality and worth. When about £3 Genoese would buy an ounce of gold bullion,[1] a balas ruby and three pearls exported for sale in Byzantium and valued at £80 would appear to be gems of some worth; but five and a half ounces of pearls valued at £19 stand at a low valuation, and strands or necklaces of the same gems worth from sol. 10 to £4 per *filum* cannot be regarded as of high value. When a goldsmith sells fourteen rings set with emeralds and fifteen with turquoises for £19½, or a merchant carries forty-eight gold rings set with thirty-three diamonds and fifteen emeralds valued at £14, it is evident either that such gems were of inferior size and quality, perhaps even imitations, or that jewels were generally very low in value. A lengthy compilation of such references would therefore not be very illuminating on the variety and value of mediaeval gems.[2]

Since reading the able article on 'Mediaeval Gem Stones' by Professor Urban T. Holmes in SPECULUM for April, 1934, however, I have encountered in my notes from the notarial archives of Genoa a detailed list of jewels belonging to the

[1] The price of gold in Genoese money may be reckoned either from investments in gold bullion in the ounce of 576 grains (P. Rocca, *Pesi e Misure Antique de Genova* [Genoa, 1871], p. 110), or from investments by Genoese merchants in the ounce of gold *tarenorum* of Sicily of 600 grains, 30 *tareni* of 20 grains each, cf. P. Guilhiermoz, 'Note sur les Poids du Moyen Age,' *Bibliothèque de l'École des Chartes*, LXVII (1906), p. 190. From the figures given below it will be seen that the prices of the two ounces are not far apart, with that of gold bullion slightly higher than that of the ounce of gold *tar.*, even without making the adjustment for the difference in the two ounces. The *tareni* were issued by the Sicilian mint in roughly stamped lumps which in 1292 were of 16 carat gold .667 fine. Allan Evans, 'Some Coinage Systems of the Fourteenth Century,' *Journal of Economic and Business History*, III, no. 3, p. 491. Only two citations of the price of gold bullion can be given since in most cases both weight and value are not given in the same contract. In 1205, 16 ounces 1 den. were valued at £43 sol. 16, or £2.73 per ounce. ASG, Not. G. Cass., fol. 271^{v}. In 1236, 12⅔ ounces were valued at £36 sol. 12, or £2.89 per ounce. ASG, Not. B. Cass., fol. 74^{v}. For comparison, in the first half of the thirteenth century the ounce of gold *tar.*, a favored form of Genoese investment in trade with the western Mohammedan lands and occasionally with Syria, stood at £2.28 (sol. 45 den. 8) in 1205; at £2.6 (sol. 52) in 1236; at £2.53 (sol. 50 den. 7½) in 1239; at £2.75 (sol. 55) in 1253; at £3 (sol. 60) in 1263. ASG. Not. G. Cass., fol. 266^{r}; Not. B. Cass., fol. 16r; Not. Pal. de S., reg. I, fol. 92r; Not. B. de For., reg. III, fol. 154^{v}; *ibid.*, reg. V, pt. II, fol. 98^{r}. It had risen from £2.1 (sol. 42½) in 1158, £1.8 (sol. 35 den. 10) in 1162, £2.1 (sol. 42 and sol. 42⅝) in 1191; *Historiae Patriae Monumenta*, VI (*Chartarum* II), nos. 654, 1183; and ASG, Not. G. Cass., fol. 1^{v}, 8^{r}, 27^{v}. While the price of gold was thus steadily rising, it should be noted that the silver content of the Genoese *denarius* upon which the pound of account rested had been declining. C. Desimoni, 'La Décroissance Graduelle du Denier de la Fin du XI^{e}. au Commencement du XIII^{e}. Siècle,' *Melanges du Numismatique* Publiées par F. de Saulcy et A. de Barthélemy, III (Paris, 1882), pp. 52–79.

[2] Exported to Tunis in 1236, £100 invested in balas rubies (*baraxiorum*), pearls and gold brocade, ASG, Not. B. Cass., fol. 83^{v}. A goldsmith in 1250 sells 14 gold rings set with emeralds, 15 with turquoises for £19½, and another sends to Laon 21 amber and silver beads worth £4 sol. 13½, ASG, Not. B. de For., reg. II, fol. 11^{r}. In 1251 a goldsmith exports £21 in silver, crystal buttons, and girdles, *ibid.*, fol. 106^{v}. In 1251 a merchant carries abroad two strands of pearls, and a brooch set with precious stones, valued at £42½, *ibid.*, fol. 176^{v}. A goldsmith in 1252 sends abroad £13 in small knives and crystal beads, *ibid.*, fol. 243^{r}. Another in 1253 sends to Sicily £13 invested in gold rings set with

Hohenstaufens of Sicily in 1253, three years after the death of the emperor Frederick II, and perhaps a part of his treasure. An agent of his son, King Conrad of Sicily, purports to be purchasing the jewels in Genoa, but in view of the desperate situation in which the Hohenstaufens were then placed by their efforts to maintain their power, it is more probable that the purchase was only simulated, and that in reality the agent was either pledging the jewels as a means of raising funds, or else was arranging for the redemption of the objects from the existing creditor. So great had been the needs of the family that in 1251, shortly after the emperor's death, a throne or *faldasterium* ornamented with gold, pearls, and other precious stones, supposedly that of the late monarch, had been pledged in Genoa to a group of the Spinola family for £2000 at an interest rate amounting to $33\frac{1}{3}$ per cent per annum.[1] In the record of that transaction the stones are not further de-

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sapphires and in girdles mounted with brass, ASG, Not. B. de For., reg. IV, fol. 22^{v}. In the same year a Florentine entrusts to a merchant going to Montpellier £64 sol. 19 invested in rings set with emeralds and diamonds, *et in alias joas et lapides preciosos*, and the same merchant carries for a goldsmith £9 invested in three gold rings set with small rubies and emeralds, and £11 sol. 9 in gold rings set with sapphires and turquoises, and in silver brooches, *ibid.*, fols. 28^{r}, 33^{r}. The same smith exports to Sicily £15 in gold rings set with sapphires, in silk girdles mounted with brass, and in loose sapphires; and to Montpellier he sends sol. 58 invested in six gold rings set with emeralds and turquoises, and in crystal beads, *ibid.*, fols. 33^{v}, 153^{r}. A merchant going to Tunis in 1253 carries £8 sol. 13 covered by a pledge of two *perlas grossas* and two mounted cameos, ASG, Not. B. de For., reg. IV, loose folio unnumbered. In 1263 a Piacenzan appoints an agent to secure in Bologna and then to fetch to Genoa from Lapus de Avenzati of Florence of the *Societas Falconerii* of Florence, two bowls of chalcedony mounted with silver, three cameos set in gold and surrounded with small emeralds, 120 dozen enameled buttons, and ten rings of gold set with rubies and small emeralds, value not given, ASG, Not. B. de For., reg. V, pt. II, fol. 92^{r}. A merchant exports to France in 1253 three rings set with emeralds and rubies worth £9. A Ferretto, 'Documenti Genovesi di Nove e Valle Scrivia, II (1231–1260),' *Biblioteca della Società Storica Subalpina*, LII (1910), 243. A merchant exports to Montpellier in 1257, £14 invested in 48 gold rings set with 33 diamonds and 15 emeralds. A. Ferretto, 'Documenti intorno alle Relazioni fra Alba e Genova, 1141–1290,' I (Genoa, 1906), p. 217. A merchant carries to Byzantium in 1281 a balas ruby (*balaxium*) and three pearls valued at £80. A. Ferretto, *Codice Diplomatico delle Relazioni fra la Liguria, la Toscana, e la Lunigiana ai Tempi di Dante*, II (Rome, 1903), 383. In 1248 a woman gives a receipt for two rings, one set with a garnet and the other with an emerald, value not stated, ASG, Not. Pal. de S., reg. II, fol. 28^{r}. Another woman in her will in 1251 leaves to a man £6 sol. 7 to redeem a gold ring set with a diamond which she had left with him in pawn, ASG, Not. Pal. de S., reg. I, fol. 205^{v}. Ten pearls on the surcoat of a notary's daughter mentioned in his testament in 1264. ASG, Not. Pal. de S., reg. III, fol. 159 ff.

Pearls, *perle seu margarite*, aside from those referred to in the preceding paragraph, exported mostly in strands: to Syria, *circa* 1253, 16 *fili* worth £8 sol. 16, ASG, Not. B. de For., reg. IV, loose folio unnumbered. To unnamed destinations in 1263, 19 *fili* worth £66; 15 worth £60; $5\frac{1}{2}$ ounces worth £19, ASG, Not. B. de For., reg. V, pt. II, fols. 104^{v}, 105^{r}. Unknown quantity sold to some Lucchesi in 1276 for £293. A. Ferretto, *Cod. Dipl.*, II, 92. To Majorca in 1277, 33 *fili* worth £8 sol. 5, and to Sicily 20 *fili* worth £34, *ibid.*, pp. 129, 190. To Marjorca in 1281, 30 *fili* worth £33, ASG, Not. S. Vatt., reg. II, fol. 202^{r}. In 1281 to an unknown port, 70 *fili* worth £150. Ferretto, *Cod. Dipl.*, II, 357.

[1] ASG, Not. B. de For., reg. II, fol. 175^{r}. The interest rate is not stated. The debtor acknowledges receipt of £2000 Genoese on June 21, for which he agrees to pay at the next fair of Bar-sur-Aube, which would be in March and April, £1600 *proveniensium*, which is at the exchange rate of den. 15 Genoese for den. 12 *prov.*, about the usual rate of exchange for this fair at the time, which runs 15, 16, or 17 for 12. Should he not pay, as he probably intended should be the case, he agrees to pay in Genoa three months from the following Easter den. 20 Genoese for every den. 12 *prov.* not paid at the fair, or

scribed, but in that of 1253 the jewels are carefully listed, and while only one variety is mentioned which has not been found by Holmes in the royal inventories he has used, the list confirms several of his conclusions, throws some light on mediaeval taste in gems and on their relative rarity, and offers an opportunity to compare the value of such a store with the cost of certain services and of other goods. It is sufficiently detailed, moreover, even though it may represent only a part of the Hohenstaufen possessions of this nature to be worthy of publication as an addition to the list of inventories of royal jewels of much later dates cited by Holmes.[1]

Before discussing the variety of the jewels and their relative worth, it may be well to glance briefly at the financial features of the transaction. Contained in two *bronziis* of leather sealed with the seal of the royal agent, Josept de Brauduxio, described as representing the impression of a palm tree suggestive of his eastern or southern origin, the jewels, whether in process of being purchased, pledged, or redeemed, were deposited with the creditors, Jacobus Buxole of Parma[2] and his

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$33\frac{1}{3}$ per cent. in interest on the amount technically due at the fair, in about one year's time. The creditors were authorized, as usual, to sell the throne at the final term if the debt were not then paid. It may be of interest to note that the Spinole were hereby exactly covering a payment they had previously agreed to make at Bar of £1600 *prov.* for 'tot denarios' borrowed from another merchant for which they had likewise agreed to pay den. 20 Genoese for den. 12 *prov.* in case they did not pay at the fair. The two transactions may have been part of one and the same deal, *ibid.*, fol. 173^{r}.

[1] The text of the document, ASG, Not. B. de For., reg. III, fol. 154^{v}, is as follows:

In nomine domini amen. Ego Josept de Brauduxio nuncius domini Regis Conradi confiteor me debere tibi Jacobo Buxoli de Palma nomine tuo et sociorum tuorum uncias noningentas decem et septem auri tarenorum bonorum et legalium ad pondus regni et soldos quinque Janue que uncie extimate sunt soldi quinquaginta quinque Janue pro uncia, que restant tibi ad habendum de precio rerum infrascriptarum quas emi a te. Res omni sunt iste; Anuli triginta septem robini. Anuli auri de safilio de Podio quadraginta tres. Anuli auri decem cum topaciis. Anulus unus auri camioli concirati de smeradetis. Anulus de auro cum crisopacio. Anulus auri cum peredoto. Anulus auri cum plasme due. Anulus auri cum clapaudine decem. Safilii inclusi in auro orientali tres. Safilio de Podio incluso in auro uno. Safilii orientali exclusi centum duodecim. Safilii de Podio duo. Topacium inclusum in auro unum. Topacii exclusi decem et novem. Lapide entaliate excluse trescentas octuaginta quatuor. Lapides de entalia excluse centum undecim. Lapides de entalia clause in auro viginti novem. Lapides de entalia incluse in argento quinque. Lapis de entalia inclusa in ramo una. Corne de safilio orientale inclause in auro due. Camiolus inclusus in auro cum galma hominis unus. Lapides de entalia excluse sexdecim. Camioli inclusi in auro quinquaginta. Camioli exclusi septuaginta septem. Camioli de vetro exclusi tres. Vas unum de onizilo et calzedono guarnitum de auro. Vasa de onizilo et calzedono sine guarnimento tria. Cruces de auro cum ligno domini tres. Lapis de entalia guarnita de auro reliquie intus una. Anuli de auro cum diamanti duo. Anulus de auro sine lapide unus. Anulus de auro cum lapide plena de diamanti unus. Anulus de auro cum safilio orientali unum. Anulum de auro cum cameolo unum. Crus de crestalo una. Perle orientale quinquaginta novem. Cameolum de jaspeo guarnitum de auro et perlis intus lignum domini unum. Lapis de calzedono guarnita de auro una. Et sunt in duabus bronziis de corio et sigillate sigillo mei Josept sculto arbore palme. Quas uncias noningentas decem et septem auri et soldos quinque Janue per me vel meum missum tibi vel tuo certo misso dare et solvere promitto in civitate Janue usque ad medietatem quadragesime proxime venture. Eo acto inter me et te quod si ut supra tibi non solvero et dedero tibi dictas uncias ut dictum est debent esse tue libre centum Janue videlicet illas libras quinquaginta quas tibi Burgus de Florentia fecit scribere in bancho Guillelmi Lecacorvi et illas libras quinquaginta tibi pro me promiserunt ex delegatione mea Paganellus Manatus de Pistoia et Bernardinus filius quondam Jacobi Storti de Palma. Et a termino in antea liceat tibi vendere dictas res cui volueris sine omni mea et heredum meorum omniumque pro me contraditione. Actum Janue eo loco die hora et presentibus.

(Actum Janue in fundico Bestagnorum. Testes Jacobinus Bestagnus. Jacobinus de Casali et Pariboni Romei de Versali. Die XXI Decembris circa terciam.) The year 1253 is given in preceding folios.

[2] In 1248 he was engaged in several large financial transactions in Genoa on his way to the fairs of Champagne, acting for Deustesalve of Parma and other anonymous associates. ASG, Not. B. de For., reg. I, pt. II, fols. 30^{v}, 172^{v}.

associates. The debtor obligated himself to pay at the end of three months 917 ounces of gold *tareni* of Sicily plus 5 Genoese *solidi;* or, if he made the payment in Genoese money, he must pay at the relatively high rate of sol. 55 per ounce of gold,[1] amounting to £2522 Genoese. The creditors, who were empowered to sell the jewels without restriction in case of default, were offered further security in a bond of £100, half of which was placed at the bank of the Lecacorvi in Genoa by one Burgos of Florence[2] and half was guaranteed by two citizens of Pistoia and Parma, the whole to be paid to the creditors on behalf of the debtor should he default on the specified date about three months thence.

An analysis of the document discloses nine hundred and eighty-seven objects in all, seven hundred and eighty-three loose stones, one hundred rings, ninety-four pieces of jewelry apparently in the form of brooches or pendants, and ten articles of devotional use or household adornment.

The hundred rings were probably all of gold, since all except the ruby rings are specifically so described, and all but one were set with gems. Forty-three were set with European sapphires coming from Le Puy-en-Velay, where the volcanic deposits, as Holmes points out, yielded a stone less valuable than the Oriental sapphire, and fairly common in the West. In this document, as in others cited by Holmes, it is always carefully described as a saphire *de Podio* in contradistinction to the sapphire *orientalis*, and may therefore have been of a slightly different shade or color. Thirty-seven rings were set with rubies, ten with topazes, one with an Oriental sapphire, one with a cameo surrounded by emeralds. Of two diamond rings listed one was a complete circlet of those stones. Of the remainder one was set with a chrysoprase,[3] one with a peridot or chrysolithus,[4] one with two pieces of plasma,[5] one with ten toadstones or *clapaudine*,[6] and one with a cameo not otherwise described.

The ninety-four pieces which are assumed to have been brooches or pendants are described merely as stones *inclusi* or *guarniti* by metal, i.e., mounted or set, and therefore probably in one of those forms of personal adornment — five in silver, one in copper, and the rest in gold. Fifty-one are cameos, one of which is described as bearing the image of a man (*galma hominis*), no indication of the color or variety of the stone being given in any case. Thirty-five are mounted intaglios, not otherwise described except as to the settings which were all of gold except the six in silver and copper. Three of the pieces were set with Oriental

[1] See above note 1.

[2] A Florentine well known in Genoa where in 1251 he had founded a partnership for the weaving of cloth in which he had supplied the capital of £600, ASG, Not. B. de For., reg. II, fol. 113^{r}.

[3] This is the sole mention of this stone I have found in Genoese documents nor has Holmes met it in those he has used but is of the opinion that it may have been sometimes confused with green jasper or other stones, *op. cit.*, p. 202.

[4] This is also the single reference to this stone which I have thus far met, but it may be noted that this yellow stone is not here confused with the topaz of which many are listed in the document. Cf. Holmes, *op. cit.*, p. 199.

[5] The only mention of this kind of impure opaque quartz I have found. Cf. *ibid.*, p. 198.

[6] The *crapaudine* of the inventory of Charles VI of France, cited by Holmes, and defined by him as the tooth of some ganoid fish. *Ibid.*, p. 204. It is not elsewhere named in Genoese documents, as far as I know.

sapphires apparently simply cut, and two with the same stone either highly cut or of a pointed form ('corne de saphilio orientale'), and one with a sapphire from Le Puy. Of the other two pieces in this fashion one was set with a topaz and another with a piece of chalcedony.[1]

The objects of devotional use or household adornment consist of three crucifixes of gold,[2] a crystal cross,[3] a reliquary of gold set with an intaglio, a cross adorned with a cameo of jasper[4] mounted in gold and set with pearls, and four vases of onyx and chalcedony combined, one of which was ornamented with gold.

The loose stones, seven hundred and eighty-three in all, are made up of one hundred and twelve Oriental sapphires, two sapphires from Le Puy, nineteen topazes, fifty-nine Oriental pearls, seventy-seven cameos of stone and three of glass; and finally there were three lots of unmounted engraved gems or intaglios numbering five hundred and eleven.

The variety of stones named, fourteen if we do not differentiate between the two sorts of sapphires but include the toadstone or *clapaudina* which is not properly a stone at all, is not remarkable when compared with the fifty-nine substances listed in the mediaeval lapidary of Bishop Marbodus.[5] This bears out the statement of Holmes that many of the substances named by Marbodus may have been rare or quite unknown in the West in the Middle Ages, although the mention of the chrysoprase is interesting, since Holmes does not find it in the lists at his disposal and comments on the fact. On the other hand, several of the stones found in Genoese trade, such as the turquoise, garnet, amber, and coral, are not represented in this collection, nor is the amethyst which I have not yet encountered in trade. Except for one cameo of jasper and three of glass, we do not know of what substances the hundreds of cameos and intaglios were composed; the variety of stones or substances represented may therefore have been considerably larger. The true precious stones fall into the following order roughly as to quantity: Oriental sapphires, Oriental pearls, sapphires from Le Puy, rubies, topazes, diamonds, and emeralds.

The great number of cameos and engraved gems, six hundred and eighty-one, raises the question of their manufacture — antique, Byzantine, or mediaeval. Although we know little of mediaeval gem engraving, it would seem that the cameos at least may have been of mediaeval workmanship, like those commonly exported from Genoa; they may have been cut very simply for contrasting color alone, since only one is definitely described as depicting the human form, although the cross or crucifix with a cameo of jasper set with pearls might have shown the figure of Christ on the stone, and in fact other cameos may also have

[1] The only other mention of this form of non-crystalline quartz is one of bowls mounted with silver. See p. 178, n. 2.

[2] *Cruces de auro cum ligno domini* seem to mean crucifixes. *Lignum domini* or *lignum dominicum* is usually defined as a cross, but in fact either expression may mean crucifix as we say 'cross' today implying the figure thereon.

[3] For the use of crystal for buttons and beads see p. 178, n. 2.

[4] In 1281 a merchant exported to Majorca 8 pairs of knives with handles of *roarch* (?), and 9 pairs with handles of jasper, silver, and coral. ASG, Not. S. Vatt., reg. II, fol. 234r. Jasper I have not otherwise found in Genoese trade.

[5] Cited by Holmes, *op. cit.*, p. 196.

depicted figures and yet have been merely described as 'cameos' as is the custom in modern times. As for the intaglios, of the designs on which unfortunately no hint is given, since they are usually made of very hard stones and are practically indestructible, many or all may have come down from antiquity. Their presence in such quantities in this list, chiefly unset, points to a wider appreciation of such objects of art in the thirteenth century than is generally assumed if the transaction were a bona fide sale by a dealer in gems to King Conrad's agent. On the other hand, if the transaction were in reality a loan with the gems as security, as seems more probable, then the engraved stones may have formed a collection of antique gems made by Frederick himself, another evidence of his astonishingly wide interests, of his love of antiquity and of beauty.[1]

When we come to the worth of the jewels we are confronted by a somewhat difficult problem. If the transaction were an outright sale, then obviously the market value of the collection was £2522 Genoese, but if it were a case of security for a loan the sum mentioned was no doubt considerably below the real market value of the jewels when sold piece by piece or in small lots as would be necessary on account of the difficulty in finding a purchaser of the entire store except in royal circles. One can only accept the sum named as the minimum worth of the jewels agreed upon by the parties to the transaction, regardless of what value Frederick as the possible former owner and collector or Conrad as a hard-pressed debtor might have placed upon them. As trade investments went in the mid-thirteenth century, £2522, although a very considerable sum, was not startling among the wealthiest merchants in Genoa. The question of what the amount actually meant then arises. In attempting to determine its equivalent it would indeed be futile to try to reckon it in terms of modern currency as has so often been done in dealing with mediaeval sums, but a fair notion of the meaning of the sum may be reached by considering what it would have purchased at that period in Genoa, bearing in mind that £2522 was the expressed equivalent of 917 ounces of gold of the fineness required by the Sicilian mint, or of about 870 ounces of gold bullion on the Genoese market.[2]

Salaries and wages afford one basis of comparison. In 1225 the annual salary of the podestà of Genoa was £1300, out of which he was required to pay the expenses of his entire establishment, including two *judices* and twenty servitors, with allowances for travel on official business varying from £2 to £4 per day in accordance with circumstances.[3] At the other end of the scale, in industrial circles, a skilled blacksmith received about £13 per annum in daily wages if continually occupied;[4] a shield-maker received the same amount and daily lunches in addition;[5] weavers received from £5 to £15 in a year, dependent on their age and skill.[6]

[1] Cf. E. Kantorowicz, *Frederick the Second* (New York, 1931), pp. 528 ff.

[2] See p. 178, n. 1.

[3] ASG, Not. Fed. de Sig., reg. II, fol. 85^{r}. Cf. V. Poggi, 'Series Rectorum Reipublicae Genuensis,' *Hist. Patr. Mon.*, XVIII, col. 1006, and M. G. Canale, *Nuova Istoria della Republica di Genova* (Florence, 1860), II, 217.

[4] ASG, Not. Pal. de S., reg. II, fol. 9^{v}, *anno* 1241, den. 10 per day, paid weekly.

[5] *Ibid.*, fol. 107^{v}, *anno* 1248, den. 10 per day, paid daily.

[6] *Ibid.*, fol. 89^{v}, *anno* 1248, den. 4 and den. 12 per day paid weekly.

Artisans of a higher type, paid by the year in monthly or quarterly installments, received somewhat more. A gold-worker, *batifolius*, was paid £18 per annum;[1] a decorator of shields sufficiently known to be urged by letter to come to Genoa to practice his art was promised £18 to £24 per annum;[2] two Genoese dyers agreed to go to Germany to engage in their craft in the employ of a German then in Genoa at £20 and £35 per annum in addition to board and lodging.[3] A factor trading abroad for other merchants received £18 the first year and £22 the second, with all expenses except his clothes when away from Genoa.[4] The equivalent of the sum on this basis therefore represents the salary of the head of the state for two years, or roughly the annual earnings of about a hundred and fifty skilled craftsmen.

Another basis of comparison lies in material things. The sum for which the jewels were pledged would have bought one of the largest ships of the period fully manned and equipped with provisions for four months.[5] It would have purchased about 500 cwt. of cotton,[6] 150 sacks of wool of around 500 pounds each,[7] over 18,000 bushels of wheat in that year of a plentiful harvest or about

[1] ASG, Not. B. de For., reg. I, pt. I, fol. 103^{r}, *anno* 1233. The agreement was for £6 on demand and sol. 20 per month.

[2] Two Genoese *scutarii* write a letter to Robertus Francigene *pintor*, asking him to come to Genoa to enter the employ of one or the other for two years at sol. 30 to sol. 40 per month "in tua voluntate." ASG, Not. Pal. de S., reg. II, fol. 22^{r}, *anno* 1248.

[3] ASG, Not. Pal. de S., reg. I, fol. 97^{v}, *anno* 1239.

[4] G. Gorrini, 'Documenti sulle Relazioni fra Voghera e Genova (960–1325),' *Bibl. Soc. Stor. Subalp.*, XLVIII (1908), 128–129.

[5] E. H. Byrne, *Genoese Shipping in the Twelfth and Thirteenth Centuries* (Cambridge, 1930), pp. 22–23.

[6] An average price of den. 12 per pound has been used, based on many recorded sales between 1236 and 1268 when the price ran from a low of den. 9.2 to a high of den. 12.8, having risen from about den. 4 in the middle of the preceding century. Cotton was sold in sacks of about 500 pounds, or in *saume* of about 450 pounds each, but the actual weight is always given as well as the number of packages since the price was reckoned on the *cantarium* of 100 *rotuli* (150 pounds) although usually not the price but the total value is given. For convenience in making comparisons the prices for various years which follow have been figured per pound. *Anno* 1158, den. 3.8, *Chartarum* II, no. 597. *Circa annum* 1160, den. 4.6, ASG, Not. Giov. Scriba, fol. Extra A^{r} (not edited in *Chartarum* II with the other acts of this notary but found on my last visit to Genoa bound into the register transversely along with some other notes of the period which now appear in the register as folios marked 'Extra'). *Anno* 1236, den. 9.2, ASG, Not. Osberg. e Magg., reg. I, fol. 241^{r}. *Anno* 1241, den. 11.6, Ferretto, *Bibl. Soc. Stor. Subalp.*, LII (1910), 88. *Anno* 1248, den. 12 and den. 12.4, ASG, Not. B. de For., reg. I, pt. II, fol. 123^{v}, 127^{v}. *Anno* 1263, den. 12 and den. 12.8, ASG, Not. B. de For., reg. V, pt. II, fol. 69^{v}. *Anno* 1268, den. 9.83, L. T. Belgrano, *Documenti Inediti Riguardanti le Due Crociate di S. Ludovico IX Re de Francia* (Genoa, 1859), p. 104 note.

[7] An average price of £16.9 per sack, based on sales of 266 sacks in many different lots between 1248 and 1282, has been used. Wool was sold by the *cantarium*, by the *sauma*, or by the sack of weight varying from 400 to 523 and 547 pounds; from the fact that after about 1248 many sales took place with number of sacks stated but no weight given, it might be assumed that a standard weight per sack was accepted among merchants. The price of wool by weight varied with the quality from den. 3 per pound, to den. 15 for the highest priced product imported from Narbonne, the average on scores of sales between 1233 and 1275 being about den. 5 per pound excluding wool from Narbonne. It seems unnecessary to list here scores of references. Those which follow are to the more important sales of sacks between 1248 and 1282, excluding again wool from Narbonne. ASG, Not. B. de For., reg. I, pt. II, fol. 156^{v}; reg. II, fol. 8^{v}; reg. V, pt. II, fol. 44^{v}, 69^{r}, 69^{v}; Not. B. Cass., fol. 180^{v}; Ferretto, *Cod.*

13,000 in an ordinary year.[1] It represented about 1500 pounds of raw silk,[2] 290 cwt. of pepper,[3] 100 cwt. of sugar,[4] or over 370 cwt. of wax.[5] In live stock it would have purchased between 8000 and 9000 sheep,[6] about 630 cows or oxen or 2500 calves,[7] about 7000 goats,[8] over 160 asses,[9] more than 400 ordinary horses or about

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Dipl. II, pp. 17, 246, 254, 322–323. I have no wool prices for the twelfth century for comparison as in the case of cotton. The chief references to wool imported from Narbonne follow. Ferretto, *op. cit.*, pp. 42, 154, 155, 322–323. The sources frequently but not always state the source of the wool which was imported from Africa, Spain, Provence, and Narbonne, and Syria, with no mention found of English wool as such; it was sold in Genoa to merchants from many of the northern towns and from Florence in large lots, and to local dealers and weavers in lesser quantities, on a very active market.

[1] Wheat, imported into Genoa chiefly from Sicily, but also from southern France and even from Byzantium, was sold by the *mina* which in the thirteenth century was equal to litres 91.630 (P. Rocca, *Pesi e Misure*, p. 109), or 2.52 bushels. In the very year of the loan with which we are here concerned, 1253, wheat sold in Genoa at the lowest price I have found recorded between 1225 and 1287, sol. 7 per *minam*. Ferretto, *Bibl. Soc. Stor. Subalp.*, LII (1910), 228. The average price on seventeen sales between 1225 and 1267 is sol. 9.7 per *minam*. In making the calculation in the text above I have therefore used these two prices, sol. 7 for a year of plenty and sol. 9.7 for an ordinary year, disregarding famine or near famine prices. In 1275 for example, wheat rose to a new high of sol. 21 per *minam* and in the following year to the famine price of sol. 40, falling in the decade ensuing to sol. 10–18. References for various years to prices per *minam* follow. *Anno* 1225, sol. 8, A. Ferretto, *Liber Magistri Salmonis, Sacri Palatii Notarii*, 1222–1226 (Genoa, 1906), p. 152. *Anno* 1245, sol. 12 and 11½, ASG, Not. Osberg. e Magg., reg. I, fol. 100r. *Anno* 1248, sol. 13, ASG, Not. B. de For., reg. I, pt. II, fol. 84r. *Anno* 1267, sol. 7½, 8, 9, 9½, ASG, Not. Osberg. e Magg., reg. I, fol. 102v, 107r, 108v. *Anno* 1275, sol. 21, Ferretto, *Cod. Dipl.* II, p. 51. *Anno* 1276, sol. 40, *ibid.*, p. 106. *Anno* 1277, sol. 15–18, *ibid.*, pp. 148–150, 154–5, 159, 162, 174, 194–5. *Anno* 1278, sol. 13–16, *ibid.*, pp. 204, 209. *Anno* 1279, sol. 10, *ibid.*, p. 276. *Anno* 1280, sol. 10–12, *ibid.*, pp. 305, 309–310, 312, 325. *Anno* 1281, sol. 11–15, *ibid.*, pp. 341, 380–4. *Anno* 1287, sol. 15, Gorrini, *op. cit.*, p. 294.

[2] Among hundreds of investments in silk in the thirteenth century both weight and value have been found in only five instances, presenting an average price per pound of £1.68 for the years 1236–1251. References to price per pound follow. *Anno* 1236, sol. 31, ASG, Not. B. Cass., fol. 15r. *Anno* 1239, sol. 36, *ibid.*, fol. 106v. *Anno* 1248, sol. 31, ASG, Not. Pal. de S., reg. II, fol. 108r. *Anno* 1250, sol. 40, *ibid.*, reg. I, fol. 172r. *Anno* 1251, sol. 34 den. 8, ASG, Not. B. de For., reg. II, fol. 176r.

[3] An average price for the years 1236–1255 has been used, £8.65 per *centenarium* or cwt. (den. 21 per pound), nearly double the price in the middle of the twelfth century. Prices per cwt. for various years follow. *Anno* 1155, £3 sol. 2 den. 8, *Chart.* II, no. 255. *Anno* 1157, £3 sol. 10, and £3 sol. 15 *ibid.*, nos. 398, 539, 540. *Anno* 1158, £5 sol. 15, *ibid.*, no. 680. *Anno* 1160, £4 sol. 7, and £4 sol. 10, *ibid.*, nos. 908, 924. *Circa annum* 1160, £5, ASG, Not. Giov. Scriba, fol. Extra Ar. *Anno* 1161, £4 sol. 10, *Chart.* II, no. 1011. *Anno* 1202, £5 sol. 10, ASG, Div. Not., fol. 224. *Anno* 1236, £7 sol. 13, ASG, Not. B. Cass., fol. 88r. *Anno* 1248, £10 sol. 6, ASG, Not. B. de For., reg. I, pt. II, fol. 88r. *Anno* 1251, £8 sol. 15 den. 4, ASG, Not. B. de For., reg. II, fol. 193v. *Anno* 1255, £8, ASG, Not. Pal. de S., reg. III, fol. 53v.

[4] Sugar in large lots sold in 1238 for den. 3.6 per pound, and in 1239 for den. 5.4 per pound. ASG, Not. Pal. de S., reg. I, fol. 93v, and Not. B. Cass., fol. 103v.

[5] In 1241 two large lots of wax from Tunis sold at den. 16.2 and den. 16.9 per pound. ASG, Not. B. de For., reg. I, pt. I, fol. 174v. For the huge imports from the Black Sea region no prices can be given here because only the total values of many shipments without the weights have been found.

[6] Using an average price per head of sol. 6, based on sales of 169 head between 1262 and 1281. A. Ferretto, *Documenti intorno alle Relazioni fra Alba e Genova*, 1141–1270 (Genoa, 1906), I, 246. Ferretto, *Bibl. Soc. Stor. Subalp.*, LII (1910), p. 257 note. Ferretto, *Cod. Dipl.*, II, 426.

[7] The average price on sales of twenty oxen and cows between 1225 and 1278 is £4, ranging from £2 to £8 each. ASG, Not. Pal. de S., reg. II, fol. 24v, 25v, 49r, 72r. Ferretto, *Liber Salmonis*, pp. 476, 483. Ferretto, *Bibl. Soc. Stor. Subalp.*, LII (1910), 235, 253, 257, 264. Ferretto, *Cod. Dipl.*, II, 426. In 1278 seven calves sold for £7 sol. 4. Ferretto, *Bibl. Soc. Stor. Subalp.*, LII, 257 note.

85 exceptionally fine ones,[1] or more than 350 Saracen slaves.[2] The equivalent of the sum under consideration, £2522, is more difficult to reckon in terms of real estate without more adequate description of the condition of houses and lands than is usually given in deeds of sale, but it would have purchased seven to ten houses of the nobility in the center of Genoa,[3] or five stone towers of the type then in vogue among the great nobles of the city,[4] and it would have bought somewhat more than a third of the village of Varazzo with thirty-odd peasant tenures therein,[5] or the entire castle and villa of Montoggio.[6] On the whole it therefore represented no inconsiderable amount of wealth in purchasing power at the time.

What became of these jewels in the troubled years of the dying Hohenstaufen era one cannot say. Ten years later than the incident here discussed, there were legal difficulties in Genoa over a debt still owed on royal Sicilan jewels upon which 425 ounces of gold *tareni* had been paid with an undefined amount still due after large expenses had been incurred, but whether or not on this same transaction is not clear, nor is there any description of the jewels.[7] In all probability the

[8] Six goats and two kids were sold in 1277 for sol. 44. Ferretto, *Cod. Dipl.*, II, 366.

[9] An average price of £14.7 based on sales of 38 beasts between 1200 and 1276 has been used. It seems unnecessary to cite here the thirty references mostly to the notaries' acts. The prices ranged from £4 to £30 per beast as the two extremes. ASG, Not. B. de For., reg. v, pt. II, fol. 119^{v}, *anno* 1248, and reg. II, fol. 135^{v}, *anno* 1251.

[1] For the lower quality of animal an average price of £6 has been used, based on thirteen sales between 1225 and 1282; and for beasts of the higher quality an average price of £30 based on thirteen sales between 1248 and 1271. Instead of listing all the references the extremes in both groups are given with the price. £3, Ferretto, *Liber Salmonis*, p. 451, *anno* 1225; and £11, ASG, Not. B. Cass., fol. 34^{r}, *anno* 1236. £27, ASG, Not. B. de For., reg. I, pt. II, fol. 2^{r}, *anno* 1248; and £70, Ferretto, *Bibl. Soc. Stor. Subalp.*, LII (1910), 233, *anno* 1253, on nine months credit.

[2] In making the average price of £7.2 more than sixty sales between 1200 and 1288 have been used, excluding slaves of advanced years when the age is given, and the very exceptionally highly priced slave, at £24 for example. It is not necessary here to distinguish between males and females since the average price for the former is £7.6 and for the latter, £7; but nearly twice as many females were sold. It may be of interest to note that although the sales of slaves are far more numerous in the thirteenth century than in the twelfth, the prices had greatly risen. Saracen boys could be bought in the mid-twelfth century for about £3, and an exceptional girl for £8. *Chartarum* II, nos. 294, 1005, 1051. In the thirteenth century most of the slaves in Genoa came from various parts of Spain, some from the Balearics and North Africa, and when Valencia was taken from the Moors in 1238, slave dealers from Tortosa brought Saracens in great numbers to Genoa where they were sold to weavers, taverners, drapers, tailors, etc., at fair prices. ASG, Not. B. Cass., fol. 107^{v}, 114^{v}, 115^{r}, 116^{r}, 120^{v}, *anno* 1239; Not. Pal. de S., reg. I, fol. 96^{r}, 99^{r}, 104^{r}, 106^{r}, 110–111, *anno* 1239; Not. B. de For., reg. I, pt. I, fol. 156–168, *anno* 1241. Occasionally an owner emancipates a slave in a testament for the benefit of his soul, sometimes only if the slave will consent to become a Christian. ASG, Not. B. de For., reg. I, pt. I, fol. 19^{v}; and Not. Osberg. e Magg., reg. I, fol. 110^{r}. There is occasional mention of baptized Saracens being sold and others being freed. Ferretto, *Cod. Dipl.*, II, pp. 88, 166–167. Cf. E. Rodocanachi, *Les Esclaves en Italie du XIII^{e} au XVI^{e} Siècle* (Besançon, 1906).

[3] Two such were sold in 1251 for £250 and £375. ASG, Not. Pal. de S., reg. I, fol. 205^{v}.

[4] In 1251 the Mallonus family sold their tower to one of the della Volta for £500. *Ibid.*, fol. 211^{v}.

[5] ASG, Not. G. de Sori, fol. 117^{r}, *anno* 1201.

[6] One half of this property was sold in 1252 for £1150. Ferretto, *Bibl. Soc. Stor. Subalp.*, LII (1910), 40.

[7] ASG, Not. B. de For., reg. v, pt. II, fol. 98^{r}.

entire store was disposed of as the family misfortunes culminated in complete disaster, and like the throne itself, were dispersed fragmentarily through Genoese channels of trade and through others in later times. The finest of them may still be in use or reposing in modern collections of engraved gems, not without having served, it is hoped, to illumine slightly the question of a few mediaeval values and prices.

BARNARD COLLEGE.

JOHN HEYRON OF NEWTON PLECY, SOMERSET

BY RUSSELL KRAUSS

A MATTER of real importance is obscured in Professor Manly's recent note, 'Mary Chaucer's First Husband' (SPECULUM, IX, 86 ff.) Neither Mr Whiting nor I have stated, despite the view expressed in the opening paragraph of this note, that the Christian name of Mary Chaucer's first husband was not John. That his surname was Heyron has been known for many years. Professor Manly misses the point of my discussion and of Mr Whiting's comment on my conclusions. The question with which I dealt was whether Chaucer's grandmother was married, as Manly once believed, to *the* John Heyron of Newton Plecy and North Petherton, Somerset, and it was with the conclusions I reached in this discussion that Mr. Whiting agreed.

Several years ago Professor Manly expressed his belief that Mary Chaucer did marry this John Heyron and that from this marriage certain benefits may have come to Geoffrey Chaucer. He stated in the introduction to his *Canterbury Tales:* 'The first husband was John Heyroun, a Londoner, apparently in the wine trade, who by a previous marriage with a Somersetshire woman had acquired land in Somerset and established relations there which may have had interesting consequences for the poet' (page 4). Some pages later he expanded this clue: 'It is, to say the least, possible, that Chaucer owed this particular office [the forestership of North Petherton], not to his early connection with the Countess of Ulster, but to the ownership of certain lands in the forest by some of his cousins (descendents of Mary Chaucer by her first husband, John Heyroun, which carried with them a claim to the appointment of forester' (page 32).

These statements are, because of the nature of the text, undocumented and the wording is a trifle vague, but the interpretation of them in my *Chaucerian Problems*[1] seems inevitable. I there demonstrated that a John Heyron of Middlesex and London married Emma, one of the three de Plecy sisters of Newton Plecy, Somerset, and further that the bailiwick of the forests of Somerset was a pertinence of the Newton Plecy manor, though not of that portion which Emma

[1] Pp. 59 and 80.